

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Marvin J. FRITZLER

Serial No.: 10/541,938

Filed: May 15, 2006

For: MONOCLONAL ANTIBODIES TO RNA  
BINDING PROTEIN GW182

Group Art Unit: 1642

Examiner: Bao Thuy L. Nguyen

Atty. Dkt. No.: UNTI:046US

Confirmation No.: 8610

**CERTIFICATE OF ELECTRONIC TRANSMISSION  
37 C.F.R. § 1.8**

I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:

May 8, 2008

Date

Steven L. Highlander

**OFFICE COMMUNICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

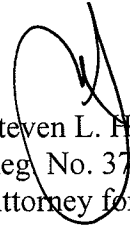
Commissioner:

This paper is being electronically filed in support of an Amendment and Request for Reconsideration Under 35 U.S.C. §1.116, previously filed on April 28, 2008. Applicants are submitting a copy of the Petition to Accord Filing Date Under 37 C.F.R. §1.181; Request to Correct Inventorship Under 37 C.F.R. §1.48(e) and a Statement to Support Request For Correction of Inventorship Under 37 C.F.R. §1.48(e) electronically filed today in Provisional Patent Application No. 60/440,326 and attached hereto as Exhibit A.

It is believed that no fee is due; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct said fees from Fulbright & Jaworski L.L.P. Account No.: 50-1212/UNTI:046US/SLH.

The Examiner is invited to contact the undersigned attorney at (512) 536-3184 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 536-3184

Date: May 8, 2008

# EXHIBIT A

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Marvin J. FRITZLER

Serial No.: 60/440,326

Filed: January 16, 2003

For: MONOCLONAL ANTIBODIES TO RNA  
BINDING PROTEIN GW182

Group Art Unit: 1642

Examiner: None

Atty. Dkt. No.: UNTI:046USP1

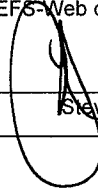
Confirmation No.: 1591

**CERTIFICATE OF ELECTRONIC TRANSMISSION  
37 C.F.R. § 1.8**

I hereby certify that this correspondence is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:

May 8, 2008

Date

  
Steven L. Highlander

**OFFICE COMMUNICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

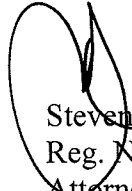
Commissioner:

This paper is being electronically filed in support of a Statement to Support Request for Correction of Inventorship Under 37 C.F.R. § 1.48(e), previously filed via the electronic filing system on May 6, 2008 (Exhibit A). Applicants failed to file the Request to Correct Inventorship Under 37 C.F.R. §1.48(e).

It is believed that no fee is due; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct said fees from Fulbright & Jaworski L.L.P. Account No.: 50-1212/UNTI:046USP1/SLH.

A courtesy copy of the Statement to Support Request For Correction of Inventorship Under 37 C.F.R. §1.148(e) previously filed is attached. The Examiner is invited to contact the undersigned attorney at (512) 536-3184 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

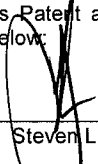
A handwritten signature in black ink, appearing to read 'Steven L. Highlander', enclosed within a large, loopy circular flourish.

Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
(512) 536-3184

Date: May 8, 2008

# EXHIBIT A

CERTIFICATE OF ELECTRONIC TRANSMISSION 37 C.F.R. § 1.8	
I hereby certify that this declaration is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:	
April 28, 2008 Date	 Steven L. Highlander

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*In re* Application of:

Marvin J. FRITZLER

Serial No.: 60/440,326

Filed: January 16, 2003.

For: MONOCLONAL ANTIBODIES TO RNA  
BINDING PROTEIN GW182

Group Art Unit: 1642

Examiner: None

Atty. Dkt. No.: UNTI:046USP1

Confirmation No.: 1591

**STATEMENT TO SUPPORT REQUEST FOR CORRECTION OF INVENTORSHIP  
UNDER 37 C.F.R. §1.48(e)**

**MAIL STOP PETITIONS**

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

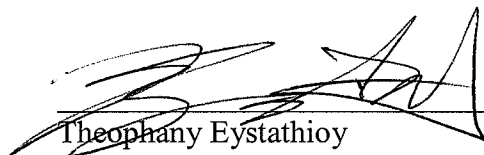
I, Theophany Eystathioy, do declare that:

1. I am a citizen of Canada residing at Calgary, Alberta. I currently hold the position of Technology Analyst at University Technologies International. A copy of my *curriculum vitae* is attached.

2. I was incorrectly named as an inventor on the above-captioned provisional application without deceptive invention, and I consent to removal of my name as an inventor thereof.

3. I declare that all statements made herein of my own knowledge are true, and that all statements of my own belief are believed to be true, and further that these statements were made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code.

March 26, 2008  
Date



Theophany Eystathioy

Commissioner for Patents  
April 21, 2008



CURRICULUM VITAE  
THEOPHANY EYSTATHIOY

PERSONAL PROFILE

Contributions:

- ❖ successfully completed: 16 publications, and 24 published abstracts
  - utilize strong time management and prioritization skills
- ❖ manage 3 students and 2 technicians
  - effectively demonstrate interpersonal, communication and organizational skills
- ❖ coordinate/direct multiple projects:
  - GW bodies in breast cancer, skin cancer, neurons, glia and stem cells
  - the study of metabolomics in Rheumatic disease
  - demonstrate strong problem solving and literature review skills
- ❖ teach and communicate science in a fun, engaging and interactive manner to:
  - grade 8 to university graduate students
  - nurses
  - conference presentations
    - awarded "overall merit- most outstanding presentation" at the Canadian Rheumatology Association in 2002

Skills:

- ❖ strong technical and analytical skills
  - technologies previously utilized include (not an exhaustive list):
    - immunoprecipitation
    - Western, Northern, Southern blot analysis
    - Transfection reactions
    - Protein-protein interactions
    - Addressable laser bead immunoassay
    - Tissue culture
    - Elisa assay
    - Immunofluorescence
    - Mass spectrometry
    - 1D, 2D protein SDS-PAGE gels
    - RT-PCR, PCR
    - RNA interference technology: siRNA, miRNA
    - Use a variety of databases including: NCBI PubMed, and the subsets of ExPASy proteomics server

## I. BIOGRAPHICAL DATA

Citizenship: CANADIAN

Date of Birth: February 01, 1973

Permanent address: Calgary, Alberta

Email: teystath@ucalgary.ca

Degree: Ph.D. Cellular and Molecular Biology  
Medical Sciences Program  
Faculty of Medicine  
University of Calgary

Position: Adjunct Assistant Professor  
Division of Rheumatology  
Department of Medicine  
University of Calgary (02/2006 - present)

## II. ACADEMIC RECORD:

### 1) Graduate:

**Ph.D.** Cellular and Molecular Biology, University of Calgary, 2004. Dr. M.J. Fritzler (supervisor)  
Thesis: GW182 is a novel protein that localizes to a unique cytoplasmic compartment

**M.Sc.** Biochemistry and Molecular Biology, University of Calgary, 1998. Dr. K. Iatrou (supervisor)  
Thesis: The ecdysone-induced regulatory cascade in the silkworm ovary: The HR3 and E75 genes.

### 2) Undergraduate:

**B.Sc.** Cellular Molecular and Microbial Biology, University of Calgary, 1994.

### III. SPECIAL RESEARCH TRAINING:

- 1) Research Associate- University of Calgary, April 2005- January 2006  
Department of Medicine, University of Calgary, with Dr. M.J Fritzler
- 2) Postdoctoral Associate-University of Florida, October 2004 – March 2005  
Departments of Oral Biology and Anatomy & Cell Biology, University of Florida, Gainesville, FL, USA with Dr. E.K.L Chan
- 3) Research Assistant- University of Calgary, March-August, 2000 Department of Medicine, University of Calgary, with Dr. M.J Fritzler — research focused on autoimmune diseases
- 4) Research Assistant- The Scripps Research Institute, La Jolla, California. October, 1998-February, 2000 Department of Molecular and Experimental Medicine with Dr. E.K.L. Chan — research focused on autoimmune diseases
- 5) Research Assistant- University of Calgary, July, 1994-December, 1994, Department of Biochemistry and Molecular Biology with Dr. K. Iatrou. — research focused on the developmental process of oogenesis

### IV. Teaching experience

- 1) Medical Science 351 undergraduate Honors Cell and Molecular Biology Winter 2007  
Coordinator Dr. Mayi Arcellana-Panlilio  
-Cell cycle (2 lectures, 2hrs each)  
-Cell signaling (2 lectures, 2hrs each)  
-provided examination questions and participated in student evaluation
- 2) Medical Science 351 undergraduate Honors Cell and Molecular Biology Winter 2006  
Coordinator Dr. Mayi Arcellana-Panlilio  
-special lecture RNAi (1 lecture, 2hrs each)  
-Cell cycle (2 lectures, 2hrs each)  
-Cell signaling (2 lectures, 2hrs each)  
-provided examination questions and participated in student evaluation
- 3) MDSC 683.02 -Cancer Biology (CB8)- Molecular mechanisms of Cancer graduate level course: Winter 2006  
Coordinator Dr. D. Fujita  
-1 lecture on miRNA (40 min)  
-provided examination questions and participated in student evaluation
- 4) MDSC 639.02 –IMM-3: Autoimmunity and Immunodeficiency graduate level course: Fall 2006  
Coordinator Drs Julie Deans and Robert Bell  
-1 lecture on systemic autoimmunity (1hr)  
-provided examination questions and participated in student evaluation

- 5) Participated in
- a) the Galileo Educational network at the University of Calgary (Contact Dr. Sharon Friesen): videoconference with Grade 8 students from Edmonton and Nanton on our research work.
  - b) March 10, 2006 - guest speaker at Calgary Girls School in April, 2006: (contact: Nancy Turnbull Grade 8 Math/Science Teacher Calgary Girls' School)
  - c) gave a presentation to the nurses part of HMRC in-service (asked by Carolyn Robertson [croberts@ucalgary.ca](mailto:croberts@ucalgary.ca)) to talk about breast cancer and GWBs on January 15, 2007
- 6) Teaching assistant- Course: Medical Sciences 717 Gene cloning and recombinant DNA technology. May-June, 1997, University of Calgary

#### V. AWARDS AND DISTINCTIONS:

Award/Distinction	Awarded by	Year Held/value
HFSP fellowship award	HFSP (Carine Schmitt, <a href="mailto:cschmitt@hfsp.org">cschmitt@hfsp.org</a> )	April 2005- 1year, renewable for one more year, to work with Dr. Walter Reith (Geneva, Switzerland) -declined due to unforeseen relocation
EMBO long-term fellowship award	EMBO (Liselott.Ahlgren@embo.org)	December 2004- received for 1year (65,000 + benefits), 1year, renewable for one more year, to work with Dr. Walter Reith (Geneva, Switzerland) -declined due to unforeseen relocation
University Technologies International Inc. Fellowship in Medicine	University Technologies International Inc	January 01–December 31, 2003/ \$15,000
Graduate Research Scholarship	Medical Science Graduate Education Committee, University of Calgary	September 2002-April 2003/ \$6000
Certificate and Cash award for "Most Outstanding presentation Award"	Canadian Rheumatology Association in Lake Louise, Alberta	February 21, 2002 / \$500
Fee Scholarship	Faculty of Medicine Trust Fund, University of Calgary	September, 2001/ \$3,000

Graduate Research Scholarship	Biochemistry and Molecular Biology Graduate Education Committee. University of Calgary	1) September-December, 1997/ \$3920 2) September-December, 1996/ \$3920 3) January-April, 1996/ \$3920
Dean's list	University of Calgary	Fall/Winter 1993-1994
The University of Calgary matriculation merit award	University of Calgary	1990/value approx. \$1000

**VI. Paper chosen by the Faculty of 1000 ([www.facultyof1000.com](http://www.facultyof1000.com))-** evaluated May 2002

Eystathioy, T., Chan, E. K.L., Tenenbaum, S. A., Keene, J.D., Griffith, K., and Fritzler, M.J. 2002. A phosphorylated cytoplasmic autoantigen, GW182, associates with a unique population of human mRNAs within novel cytoplasmic speckles. *Molecular Biology of the Cell*. 13: 1338-1351

**VII. Peer-reviewed publications**

1. Moser, J.J., Eystathioy, T., Chan, E.K.L., and Fritzler, M.J. 2007. Human glioblastoma and glia cell GW bodies are enriched with proteins involved in mRNA degradation, stabilization and RNAi. *Glia*. *submitted*
2. Jakymiw, A., Pauley, K.M., Li, S., Ikeda, K., Lian, S., Eystathioy, T., Satoh, M., Fritzler, M.J., and Chan, E.K.L. 2007. The role of GW/P bodies in RNA silencing. *J. Cell Sci.* *in press*
3. Pauley, K., Eystathioy, T., Jakymiw, A., Hamel, J.C., Fritzler, M.J., and Chan, E. K.L. 2006. GW body formation is linked to microRNA maturation. *EMBO R.* 7: 904-910
4. Lian, S., Jakymiw, A., Eystathioy, T., Hamel, J., Fritzler, M., and Chan, E.K.L. 2005. GW bodies, microRNAs, and the cell cycle. *Cell cycle*. 5: 242-5.
5. Jakymiw, A., Lian, S., Eystathioy, T., Satoh, M., Hamel, J., Fritzler, M., and Chan, E.K.L. 2005. GW bodies are essential for mammalian RNA interference. *Nature Cell Biol.* 12: 1167-74.
6. Yang, Z., Jakymiw, A., Wood, M.R., Eystathioy, T., Rubin, R.L., Fritzler, M.J., and Chan, E.K.L. 2004. GW182 is critical for the stability of GW bodies expressed during the cell cycle and cell proliferation. *J. Cell Science*. 117: 5567-78
7. Stinton, L.M., Eystathioy, T., Selak, S., Chan, E.K.L., Fritzler, M.J. 2004. Autoantibodies to Cytoplasmic Organelles: Endosomes, Lysosomes, Golgi

- Complex, Centrosomes, Proteasomes, Assemblyosomes, Exosomes and GW Bodies. *Clinical Immunology*. 110: 30-44
8. Eystathioy, T., Jakymiw, A., Chan, E.K.L., Seraphin, B., Cougot, N., and Fritzler, M.J. 2003. The GW182 protein co-localizes with mRNA degradation associated proteins hDcp1 and hLSm4 in cytoplasmic GW bodies. *RNA*. 9:1171-1173
  9. Eystathioy, T., Chan, E.K.L., Takeuchi, K., Mahler, M., Luft, L.M., Zochodne, D.W., and Fritzler, M.J. 2003 Clinical and serological associations of autoantibodies to GW bodies and a novel cytoplasmic autoantigen GW182. *Journal of Molecular Medicine* 81: 811-818
  10. Eystathioy, T., Chan, E.K.L., Mahler, M., Luft, L.M., Fritzler, M.L., and Fritzler, M.J. 2003. A panel of monoclonal antibodies to cytoplasmic GW bodies and the mRNA binding protein GW182. *Hybridoma and Hybridomics*. 22: 79-86
  11. Swevers, L., Eystathioy, T., and Iatrou, K. 2002. The Orphan Nuclear Receptors BmE75A and BmE75C of the Silkworm *Bombyx mori*: Hormonal Control and Ovarian Expression. *Insect Biochem Mol Biol*. 12:1643-1652
  12. Fritzler, M.J., Hanson, C., Miller, J., and Eystathioy, T. 2002. Specificity of autoantibodies to SS-A/Ro on a transfected and overexpressed human 60 kDa Ro autoantigen substrate. *Journal of Clinical Laboratory Analysis* 16: 103-108
  13. Eystathioy, T., Chan, E. K.L., Tenenbaum, S. A., Keene, J.D., Griffith, K., and Fritzler, M.J. 2002. A phosphorylated cytoplasmic autoantigen, GW182, associates with a unique population of human mRNAs within novel cytoplasmic speckles. *Molecular Biology of the Cell*. 13: 1338-1351
  14. Eystathioy, T., Peebles, C.L., Hamel, J. C., Vaughan, J. H., and Chan, E.K.L. 2002. Autoantibody to hLSm4 and the heptameric LSm complex in anti-Sm sera. *Arthritis and Rheumatism*. 46: 726-734
  15. Eystathioy, T., Swevers, L., and Iatrou, K. 2001. The orphan nuclear receptor BmHR3A of *Bombyx mori*: hormonal control, ovarian expression and functional analysis. *Mechanisms of Development* 103: 107-115
  16. Eystathioy, T., Jakymiw, A., Fujita, D.J., Fritzler, M.J. and Chan, E.K.L. 2000. Human autoantibodies to a novel Golgi protein Golgin-67: high similarity with golgin95/gm130 autoantigen. *Journal of Autoimmunity* 14:179-187
  17. Jakymiw, A., Raharjo, E., Rattner, J.B., Eystathioy, T., Chan, E.K.L., and Fujita, D.J. 2000. Identification and characterization of a novel Golgi protein, Golgin-67. *Journal of Biological Chemistry* 275:4137-4144

### VIII. Posters/Abstracts

1. Bhanji, R., Eystathioy, T., Chan, E.K.L., and Fritzler, M.J. 2007. The majority of patients with autoantibodies to GWBs have neuropathies and/or Sjögren's Syndrome. 62<sup>nd</sup> annual Canadian Rheumatology Association Meeting. Lake Louise, Alberta
2. Weljie, A., Martin M., Fritzler, M.J., Vogel, H.J., LeClercq, S., Walker, J., and Eystathioy, T. 2007. Metabolite biomarkers of scleroderma elucidated using 1H NMR metabolomics. 62<sup>nd</sup> annual Canadian Rheumatology Association Meeting. Lake Louise, Alberta
3. Songqing Li, Han, F., Lian, S., Jakymiw, A., Eystathioy, T., Fritzler, M.J., and Chan, E.K.L. 2007. GW182: the molecular and structural link between RNAi and mRNA decapping. Keystone symposium. MicroRNAs and siRNAs: Biological functions and mechanisms. Keystone, Colorado
4. Eystathioy, T., Pauley, K., Jakymiw, A., Hamel, J., Fritzler, M.J., and Chan, E.K.L. 2005. MiRNA is an important factor in GW body formation. 45<sup>th</sup> Annual ASCB meeting. San Francisco, California.
5. Jakymiw, A., Lian, S., Eystathioy, T., Satoh, M., Hamel, J., Fritzler, M., and Chan, E.K.L. 2005. Disassembly of GW bodies disrupts mammalian RNA interference. 45<sup>th</sup> Annual ASCB meeting. San Francisco, California.
6. Moser, J.J., Eystathioy, T., Zochodne, D., and Fritzler, M.J. 2005. GWBs in neurons contain proteins involved in mRNA degradation and RNAi. Biochemistry and molecular biology retreat (University of Calgary). Banff, Alberta.
7. Bhanji, R.A., Eystathioy, T., Chan, E.K.L., and Fritzler, M.J. 2005. hAgo2 is a major autoantigen in patients with anti-GWB Antibodies. Biochemistry and molecular biology retreat (University of Calgary). Banff, Alberta.
8. Jakymiw, A., Eystathioy, T., Satoh, M., Hamel, J., Fritzler, M., and Chan, E.K.L. 2005. Disruption of GW bodies impairs RNA interference. Ninth International Workshop on Autoantibodies and Autoimmunity. Gainesville, Florida.
9. Shangli, L., Songqing, L., Jakymiw, A., Eystathioy, T., Fritzler, M.J., Chan, E.K.L. 2005. Intracellular dynamics of GW bodies - foci of mRNA degradation and siRNA activity. Ninth International Workshop on Autoantibodies and Autoimmunity. Gainesville, Florida.
10. Shangli, L., Songqing, L., Jakymiw, A., Eystathioy, T., Fritzler, M.J., Chan, E.K.L. 2005. Intracellular dynamics of GW bodies - foci of mRNA degradation and siRNA activity. 10<sup>th</sup> Annual Meeting of the RNA Society. Banff, Alberta, Canada. Poster.

11. Jakymiw, A., Eystathioy, T., Satoh, M., Hamel, J.C., Fritzler, M., and Chan, E.K.L. 2005. GW bodies are essential for mammalian RNA interference. 10<sup>th</sup> Annual Meeting of the RNA Society. Banff, Alberta, Canada. Poster
12. Stinton, L., Eystathioy, T., Selak, S., Luft, L., and Fritzler, M. 2004. Autoantibodies to cytoplasmic "somes": endosomes, lysosomes, proteasomes, assemblyosomes, exosomes and GW bodies. Canadian Rheumatology Association Annual Meeting. Lake Louise, Alberta. Poster
13. Luft, L. M., Chan, E.K.L., Eystathioy, T., and Fritzler, M.J. 2004. The use of autoantibodies to a novel mRNA-binding protein, GW182, to study the dynamics and role of a novel cytoplasmic compartment in malignancy. 12<sup>th</sup> International Congress of Immunology. Montreal, Canada. Poster
14. Eystathioy, T., Jakymiw, A., Chan, E.K.L., and Fritzler, M.J. 2003. The GW182 protein co-localizes with mRNA degradation associated proteins Dcp1 and LSM4 in GW bodies. 8<sup>th</sup> Annual Meeting of the RNA Society. Vienna, Austria. Poster
15. Eystathioy, T., Chan, E.K.L., Yang, Z., Takeuchi, K., and Fritzler, M.J. 2002. The novel cytoplasmic mRNA-binding phosphoprotein GW182 is a target of autoantibodies from patients with Sjogren's syndrome and other conditions. American College of Rheumatology. New Orleans. Poster
16. Eystathioy, T., Peebles, C.L., Vaughan, J.H., and Chan, E.K.L. Human anti-Sm antibodies recognize LSM4 and LSM heptameric complex. American College of Rheumatology Annual Meeting, Philadelphia, 2000, Arthritis Rheum. 43:S327 Poster.
17. Jakymiw, A., Raharjo, E., Rattner, J.B., Eystathioy, T., Chan, E.K.L., and Fujita, D.J. Characterization of a new Golgi protein, golgin-67, that associates with SRC kinase. Oncogene and Growth Control Meeting, La Jolla, 1999.
18. Swevers, L., Eystathioy, T., Dinnetz, I., Ito, K., and Iatrou, K. Ovarian development in Lepidopteran insects: The silkworm Paradigm. Third International Symposium on Molecular Insect Science: Snowbird Utah, USA, 1998.
19. Swevers, L., Eystathioy, T., Ito, K., and Iatrou, K. The ecdysone response in the silkworm ovary. Gordon Research Conference on Molecular Biology of the egg: Andover New Hampshire, USA, 1998.
20. Swevers, L., Eystathioy, T., and Iatrou, K. The ecdysone response in the follicular cells of the silkworm ovary during pupal and pharate development. IV International Workshop on The Molecular Biology and Genetics of Lepidoptera: Crete, Greece 1997.



21. Swevers, L., Eystathioy, T., and Iatrou, K. Analysis of the ecdysone response in the follicular epithelium of the silkworm ovary during pupal and pharate adult development. 13<sup>th</sup> International Congress, 56<sup>th</sup> SDB Annual Meeting- Developmental Biology: Snowbird, Utah, 1997.
22. Eystathioy, T., Swevers, L., and Iatrou, K. Isolation and ovarian expression of ecdysone-inducible genes in *Bombyx mori*. Northwest Regional Developmental Biology Conference: Friday Harbor, Washington, 1997.
23. Swevers, L., Cherbas, L., Cherbas, P., Lunke, M., Qian, H., Eystathioy, T., and Iatrou, K. Nuclear hormone receptors in the silkworm, *Bombyx mori*, and their role in ovarian development. Annales d'Endocrinologie: Rouen-France, 1996.
24. Swevers, L., Qian, H., Kendirgi, F., Eystathioy, T., Lindstrom-Dinnetz, I., and Iatrou, K. terminal differentiation of ovarian follicular cells in the silkworm *Bombyx mori*: molecular switches controlling a complex regulatory pathway. XX International Congress of Entomology: Florence, Italy, 1996.

#### IX. Conference Presentations

1. 2005 Biochemistry and Molecular Biology Retreat. Banff, Alberta, 2005. GW body formation is linked to microRNA maturation.  
Eystathioy, T., Pauley, K., Jakymiw, A., Hamel, J.C., Fritzler, M.J., and Chan, E. K.L.
2. 2005 Ninth International Workshop on Autoantibodies and Autoimmunity. Gainesville, Florida. September, 2005. *Invited speaker*  
GW bodies are cytoplasmic foci committed to microRNA processing.  
Eystathioy, T., Pauley, K., Jakymiw, A., Hamel, J.C., Fritzler, M.J., and Chan, E. K.L.
3. 2004 Canadian Rheumatology Association Annual Meeting. Lake Louise, Alberta. February, 2004.  
Clinical associations and epitopes bound by autoantibodies to GW bodies and the cytoplasmic autoantigen GW182.  
Eystathioy, T., Luft, L., Chan, E.K.L., and Fritzler, M.J. (presentation given by L. Luft)
4. 2002 Canadian Rheumatology Association: Lake Louise, Alberta. February 20-23, 2002.  
Molecular characterization of a novel cytoplasmic protein GW182 and the identification of a unique cytoplasmic compartment.  
T. Eystathioy, E.K.L. Chan, K. Griffith, and M.J Fritzler.
5. 1997 Northwest Regional Developmental Biology Conference: Friday Harbor, Washington. March 13-15, 1997  
Isolation and ovarian expression of ecdysone-inducible genes in *Bombyx mori*.

6. 1997 Department of Medical Biochemistry retreat: Western Heritage Centre,  
Cochrane, Alberta. October 4, 1997.  
Molecular Biology of Oogenesis in Lepidoptera

**X. References: available upon request**

**Acknowledgement Receipt**

The USPTO has received your submission at **18:01:04** Eastern Time on **28-APR-2008** by Deposit Account: 501212.

\$ **200** fee paid by e-Filer via *RAM* with Confirmation Number: 3337.

You have also pre-authorized the following payments from your USPTO Deposit Account:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

**eFiled Application Information**

EFS ID	3220960
Application Number	60440326
Confirmation Number	1591
Title	Monoclonal antibodies to RNA binding protein GW182
First Named Inventor	Marvin J. Fritzler
Customer Number or Correspondence Address	24286
Filed By	Steven Lee Highlander/Christopher Jackson
Attorney Docket Number	666.0009P
Filing Date	14-MAY-2003
Receipt Date	28-APR-2008
Application Type	Provisional

**Application Details**

Submitted Files	Page Count	Document Description	File Size	Warnings
UNTI046USP1_STATMENT.pdf	12	Petition for review by the Office of Petitions.	510570 bytes	◆ PASS
fee-info.pdf	2	Fee Worksheet (PTO-06)	8180 bytes	◆ PASS

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the

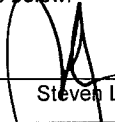
conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

*If you need help:*

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- *Send general questions about USPTO programs to the [USPTO Contact Center \(UCC\)](#).*
- *If you experience technical difficulties or problems with this application, please report them via e-mail to [Electronic Business Support](#) or call 1 800-786-9199.*

CERTIFICATE OF ELECTRONIC TRANSMISSION 37 C.F.R. § 1.8	
I hereby certify that this declaration is being electronically filed with the United States Patent and Trademark Office via EFS-Web on the date below:	
May 8, 2008 Date	 Steven L. Highlander

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*In re* Application of:

Marvin J. FRITZLER

Serial No.: 60/440,326

Filed: January 16, 2003

For: MONOCLONAL ANTIBODIES TO RNA  
BINDING PROTEIN GW182

Group Art Unit: 1642

Examiner: None

Atty. Dkt. No.: UNTI:046USP1

Confirmation No.: 1591

**REQUEST TO CORRECT INVENTORSHIP UNDER 37 C.F.R. §1.48(e)**

**MAIL STOP AMENDMENT**

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Sir:

This paper is submitted in order correct the inventorship of the above-captioned provisional application, in which inventorship was named incorrectly and without deceptive intent. The fee for this request is included herewith. No other fees are due at this time. Should applicant's payment be missing, or any other fees under 37 C.F.R. §§ 1.16 to 1.21 be required by the filing of this paper, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No. 50-1212/UNTI:046USP1.

## REMARKS

Under 37 C.F.R. §1.48(e), “If a person or persons were named as an inventor or inventors in a provisional application through error without any deceptive intention on the part of such person or persons, an amendment may be filed in the provisional application deleting the name or names of the person or persons who were erroneously named. Amendment of the inventorship requires:

- (1) A request to correct the inventorship that sets forth the desired inventorship change;
- (2) A statement by the person or persons whose name or names are being deleted that the inventorship error occurred without deceptive intention on the part of such person or persons;
- (3) The processing fee set forth in §1.17(q); and
- (4) If an assignment has been executed by any of the original named inventors, the written consent of the assignee.

Applicants hereby request the deletion of Theophany Eystathioy as an inventor for the above-captioned application, satisfying (1) above. Applicant attaches a statement from Theophany Eystathioy satisfying (2) above. The fee under §1.17(q) has been provided, satisfying (3) above. No assignment has been filed in this case, thereby obviating the need for (4).

In light of the foregoing, applicants respectfully submit that this request for correcting inventorship is proper. Should the Examiner have any questions, comments, or suggestions relating to this case, the Examiner is invited to contact the undersigned Applicants' representative at (512) 536-3184.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
512.536.5654 (voice)  
512.536.4598 (fax)

Date: May 8, 2008

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The USPTO has received your submission at **14:56:06** Eastern Time on **08-MAY-2008**.

No fees have been paid for this submission. Please remember to pay any required fees on time to prevent abandonment of your application.

**eFiled Application Information**

EFS ID	3274341
Application Number	60440326
Confirmation Number	1591
Title	Monoclonal antibodies to RNA binding protein GW182
First Named Inventor	Marvin J. Fritzler
Customer Number or Correspondence Address	24286
Filed By	Steven Lee Highlander/Christopher Jackson
Attorney Docket Number	666.0009P
Filing Date	14-MAY-2003
Receipt Date	08-MAY-2008
Application Type	Provisional

**Application Details**

Submitted Files	Page Count	Document Description	File Size	Warnings
UNTI046USP1_REQ.pdf	3	Miscellaneous Incoming Letter	75824 bytes	◆ PASS
UNTI046USP1_OFFCOMM.pdf	17	Miscellaneous Incoming Letter	636019 bytes	◆ PASS

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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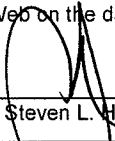
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Group Art Unit: 1642

Examiner: None

Atty. Dkt. No.: UNTI:046USP1

Confirmation No.: 1591

**PETITION TO ACCORD FILING DATE UNDER 37 C.F.R. §1.181**

**MAIL STOP PETITIONS**

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Sir:

This paper is submitted in order to have the PTO accord the above-captioned application the correct filing date of January 16, 2003. The fee for this petition is included herewith. No other fees are due at this time. Should applicant's payment be missing, or any other fees under 37 C.F.R. §§ 1.16 to 1.21 be required by the filing of this paper, the Commissioner is hereby authorized to deduct said fees from Fulbright & Jaworski Deposit Account No. 50-1212/UNTI:046USP1.

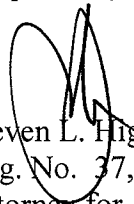
## REMARKS

On January 16, 2003, applicant filed the instant application, a copy of which is enclosed. Although no drawings were indicated as being filed with the application on the provisional cover sheet, the "specification" referenced FIGS. 1-4 (see page 15-16). The remainder of the submission contained, in fact, some 23 figures (the four referenced figures, along with 19 others), although none were labeled as such.

In applicant's May 9, 2003 submission, the figures *as filed* were resubmitted with proper numbering, and applicant's former representative explained that although not identified as such, the original January 16, 2003 filing did include all the figures. Though this filing should have been styled as a petition fee, including the fees under 37 C.F.R. §1.17(h), it was not. Thus, applicant believes the filing date was not accorded due to this procedural defect, and not due to the lack of substantive basis in the filing.

Thus, applicant is now refiling the May 9, 2003 "response" as a petition; consideration and granting of this petition are hereby respectfully requested. Should any questions arise in relation to this submission, the PTO is invited to contact the undersigned at (512) 536-3184.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
512.536.5654 (voice)  
512.536.4598 (fax)

Date: May 8, 2008

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**eFiled Application Information**

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Confirmation Number	1591
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First Named Inventor	Marvin J. Fritzler
Customer Number or Correspondence Address	24286
Filed By	Steven Lee Highlander/Christopher Jackson
Attorney Docket Number	666.0009P
Filing Date	14-MAY-2003
Receipt Date	08-MAY-2008
Application Type	Provisional

**Application Details**

Submitted Files	Page Count	Document Description	File Size	Warnings
UNTI046USP1_PET.pdf	2	Petition for review by the Office of Petitions.	66694 bytes	◆ PASS

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